

IN THE CLAIMS

Please amend the claims as follows:

1. (original) A method for processing sound signals for a surround left channel (S_L) and a surround right channel (S_R), wherein a continually varying delay between the resulting signals of the surround right (S_R) and surround left channels (S_L) is generated.
2. (original) A method according to claim 1, wherein the continually varying delay is generated so that the signals of the left and right surround channels (S_L , S_R) are decorrelated at all times.
3. (currently amended) A method according to claim 1-~~or~~ 2, wherein the left surround channel (S_L) and the right surround channel (S_R) are each split into a number of frequency bands (B_1 , B_2 , ..., B_n , B'_1 , B'_2 , ..., B'_n), and each frequency band (B_1 , B_2 , ..., B_n , B'_1 , B'_2 , ..., B'_n) of each surround channel (S_R , S_L) is delayed with respect to other frequency bands (B_1 , B_2 , ..., B_n , B'_1 , B'_2 , ..., B'_n) of the same channel (S_R , S_L), and also with respect to a corresponding frequency band (B'_1 , B'_2 , ..., B'_n , B_1 , B_2 , ..., B_n) of the other channel (S_L , S_R).

4. (currently amended) A method according to ~~any of claims 1 to 3~~claim 1, wherein the surround left channel (S_L) and the surround right channel (S_R) are mixed with other sound channels (F_R , F_L , C) and forwarded to a number of loudspeakers ($L1$, $L2$, $L3$, $R1$, $R2$, $R3$) in such a way as to yield sound output signals (A_1 , A_2 , A_3 , A_4) with a directional arrangement of dipole loudspeaker lobes (DL_1 , DL_2 , DL_3 , DL_4 , DL_5 , DL_6).

5. (currently amended) A method according to ~~any of claims 1 to 3~~claim 1, wherein the delayed surround channels (S_L , S_R) are stored together with associated sound (F_R , F_L , C , B) and/or video channels in a storage media for later use.

6. (original) A delay management unit (1) for a surround right channel (S_R) and a surround left channel (S_L) of a stereo surround channel (S) with a number of variable delay units (D_1 , D_2 , ..., D_n , D'_1 , D'_2 , ..., D'_n) to provide a continually varying delay between the signals of the surround right channel (S_R) and the surround left channel (S_L).

7. (original) A delay management unit (1) according to claim 6, comprising variable delay units (D_1 , D_2 , ..., D_n , D'_1 , D'_2 , ..., D'_n) in

each surround channel (S_L , S_R) and a control signal generator (6) with control signal outputs (C_1 , C_2 , ..., C_n , C'_1 , C'_2 , ..., C'_n) connected to the variable delay units (D_1 , D_2 , ..., D_n , D'_1 , D'_2 , ..., D'_n) in such a way as to yield the continually varying delay.

8. (currently amended) A delay management unit (1) according to ~~claims 6 or 7~~ claim 6, comprising:

- a frequency splitting arrangement for the left surround channel (S_L) and for the right surround channel (S_R) to split each channel into a number of frequency bands (B_1 , B_2 , ..., B_n , B'_1 , B'_2 , ..., B'_n);
- variable delay units (D_1 , D_2 , ..., D_n , D'_1 , D'_2 , ..., D'_n) for the different frequency bands (B_1 , B_2 , ..., B_n , B'_1 , B'_2 , ..., B'_n) in the surround right channel (S_R) and the surround left channel (S_L) and
- a control signal generator (6) for generating control signals (C_1 , C_2 , ..., C_{n-1} , C'_1 , C'_2 , ..., C'_{n-1}) to control the variable delays (D_1 , D_2 , ..., D_n , D'_1 , D'_2 , ..., D'_n) in such a way as to delay each frequency band (B_1 , B_2 , ..., B_n , B'_1 , B'_2 , ..., B'_n) of each surround channel (S_L , S_R) with a continually varying delay with respect to other frequency bands (B_1 , B_2 , ..., B_n , B'_1 , B'_2 , ..., B'_n) of the same channel (S_L , S_R), and with respect to a corresponding frequency band (B'_1 , B'_2 , ..., B'_n , B_1 , B_2 , ..., B_n) of the other channel (S_R , S_L).

9. (currently amended) A delay management unit (1) according to claim 7 ~~or 8~~, where the control signal generator (6) comprises a signal source (G) and a signal modifier arrangement (M_1, M_2, \dots, M_{n-1}) which together provide control inputs ($C_1, C_2, \dots, C_{n-1}, C'_1, C'_2, \dots, C'_n$) for the delay units ($D_1, D_2, \dots, D_n, D'_1, D'_2, \dots, D'_n$).

10. (currently amended) A sound processing system (2, 2') comprising a delay management unit (1) according to ~~any of claims 6 to 9~~ claim 6.

11. (original) An acoustic system (3), said system comprising:

- a source of a number of distinct sound channels (F, S, C, B) including a surround left channel (S_L) and a surround right channel (S_R);
- an sound processing system (2) according to claim 10 for processing the sound channels (F, S, C, B);
- and a number of loudspeakers ($L_1, L_2, L_3, R_1, R_2, R_3$) for converting the processed sound channels (A_1, A_2, A_3, A_4) into audible sound;

12. (original) An acoustic system (3) according to claim 11, where the number of loudspeakers ($L_1, L_2, L_3, R_1, R_2, R_3$) are arranged to form an array and where the sound processing system (2)

comprises a mixing unit (4) for mixing sound input channels (F, S, C) to give sound output channels (A₁, A₂, A₃,), and forwarding sound output channels (A₁, A₂, A₃, A₄) to the loudspeakers (L1, L2, L3, R1, R2, R3) in such a way as to yield a directional arrangement of dipole loudspeaker lobes (DL₁, DL₂, DL₃, DL₄, DL₅, DL₆) for the sound input channels (F, S, C, B).

13. (currently amended) A mixing unit (4) for a sound processing system (2) with a number of distinct sound channels (F, S, C) including a surround left channel (S_L) and a surround right channel (S_R) comprising:

- line inputs (100, 200, 300) for the sound channels (F, S, C);
- line outputs (101, 201, 301) for connection to loudspeakers (L1, L2, L3, R1, R2, R3);
- a means for mixing the sound channels (F, S, C) to give sound output channels (A₁, A₂, A₃) in such a way as to yield a directional arrangement of dipole loudspeaker lobes (DL₁, DL₂, DL₃, DL₄, DL₅, DL₆) and forwarding the sound output channels (A₁, A₂, A₃) to the line outputs (103, 203, 303);
- a delay management unit (1) according to ~~any of claims 6 to 9~~claim 6 to generate a continually varying delay between the surround right and surround left channels (S_R, S_L).

14. (original) A mixing unit (4) according to claim 13, comprising a user-configurable delay arrangement (5) for delaying the signals of the different sound channels (F_R , F_L , S_R , S_L , C) with respect to each other in such a way as to direct dipole loudspeaker lobes (DL_1 , DL_2 , DL_3 , DL_4 , DL_5 , DL_6) for at least some of the sound channels (F_R , F_L , S_R , S_L , C) by choosing suitable delay scale values.

15. (original) A studio system comprising a sound processing system (2') according to claim 10.

16. (currently amended) A computer program product directly loadable into the memory of a programmable sound processing system (2, 2') comprising software code portions for performing the steps of a method according to ~~claims 1 to 5~~claim 1 when said product is run on the sound processing system (2, 2').

17. (currently amended) A memory medium storing a data file comprising sound and/or video channels including surround sound channels delayed using a method according to ~~any of claims 1 to 5~~claim 1.